



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 21, 2019

Megan P. Priest
Authorized Agent to Premier Horticulture, Inc.
TSG Consulting
1150 18th Street NW, Suite 1000
Washington, D.C. 20036

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling and Formulation
Amendment – Make Minor Changes to the Labeling (e.g., Add Fungus Gnat and Thrip
Suppression Claims) and Make Other Changes to the Labeling and Already Existing
Basic and Alternate Confidential Statements of Formula, Including Those Requested by
the EPA (e.g., Combine Sublabels and Update the Hazards to Humans and Domestic
Animals Statements)
Product Name: PRO-MIX TANDEM
EPA Registration Number: 74267-4
Application Date: 10/18/2016
OPP Decision Number: 523027

Dear Ms. Priest:

The amended labeling and Confidential Statements of Formula (CSFs) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable.

At this time, the U.S. Environmental Protection Agency (EPA) is not requiring a change to the restricted-entry interval (REI) of 0 hour as it appears on your labeling in the Agricultural Use Requirements Box. The EPA is currently developing guidance and criteria for when it will allow a REI of less than 4 hours and might require a change to the REI for this product in the future. The alternate brand names BIOFUNGICIDE + MYCORRHIZAE, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE BX, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE HP, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE LP15, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE TA, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE FPX, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE MPX, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE PGX, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE VFT, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE BRK, PRO-MIX BIOFUNGICIDE + MYCORRHIZAE BRK20, and PRO-MIX BIOFUNGICIDE + MYCORRHIZAE HP-CC have been removed from the registration, while the alternate brand name PRO-MIX BIOFUNGICIDE + MYCORRHIZAE has been added to the registration; our records have been updated accordingly. This approval does not affect any terms or conditions that were previously imposed on this

registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following acceptable CSFs:

- Basic CSF (PRO-MIX BX BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #1 (PRO-MIX HPCC BIOFUNGICIDE + MYCORRHIZAE) dated 01/28/2019
- Alternate CSF #2 (PRO-MIX BRK20 BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #3 (PRO-MIX LP15 BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #4 (PRO-MIX MPX BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #5 (PRO-MIX PGX BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #6 (PRO-MIX TA BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #7 (PRO-MIX FPX BIOFUNGICIDE + MYCORRHIZAE) dated 02/13/2019
- Alternate CSF #8 (PRO-MIX VFT BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #9 (PRO-MIX BRK BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018
- Alternate CSF #10 (PRO-MIX HP BIOFUNGICIDE + MYCORRHIZAE) dated 10/31/2018

Any CSFs other than those listed above are superseded/no longer valid.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

Page 3 of 3
EPA Reg. No. 74267-4
OPP Decision No. 523027

If you have any questions, please contact Susanne Cerrelli by phone at (703) 308-8077 or via email at cerrelli.susanne@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeannine Kausch', with several overlapping strokes.

Jeannine Kausch, Product Manager 92
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

PRO-MIX® TANDEM

Alternate Brand Names (ABNs): PRO-MIX® BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® BX BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® HP BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® HPCC BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® LP15 BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® MPX BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® BRK BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® BRK20 BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® FPX BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® PGX BIOFUNGICIDE™ + MYCORRHIZAE™, PRO-MIX® TA BIOFUNGICIDE™ + MYCORRHIZAE™ and PRO-MIX® VFT BIOFUNGICIDE™ + MYCORRHIZAE™

**SPHAGNUM PEAT-BASED GROWING MEDIUM
WITH BIOFUNGICIDE FOR PROTECTED GROWING ENVIRONMENT USE (E.G. GREENHOUSES OR
CONTAINED NURSERIES)**

OPTIONAL TEXT: ALSO SUPPRESSES FUNGUS GNATS AND THRIPS

KEEP OUT OF REACH OF CHILDREN

CAUTION

See First Aid and Additional Precautionary Statements on Back Panel

ACTIVE INGREDIENT:

Bacillus pumilus strain **GHA180** (not less than 5 X 10⁴ viable spores per gram of media)0.001%

OTHER INGREDIENTS:99.999%
Total.....100.000%

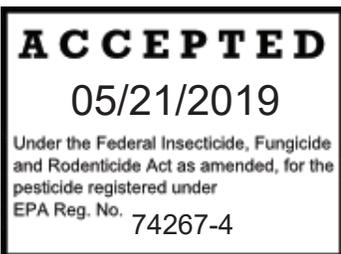
EPA Reg. No. 74267-4

EPA Establishment No. 74267-CAN-001/002/003/004

For identification of establishment number, refer to the manufacturing identification, which is ink-jet printed within side bar. This indicates year.month.day, manufacture location (1, 2, 3, 4, or 6), military time and product identification. For example: 2016.01.15 2 02:45 BX. Manufacturing locations are coded as:

- 1: for Rivière-du-Loup, Quebec – compressed products (EPA Establishment No. **74267-CAN-001**)
- 2: for Rivière-du-Loup, Quebec – loose fill products (EPA Establishment No. **74267-CAN-001**)
- 3: for Richer, Manitoba (EPA Establishment No. **74267-CAN-002**)
- 4: for Northal, Alberta (EPA Establishment No. **74267-CAN-003**)
- 6: for Rexton, New Brunswick (EPA Establishment No. **74267-CAN-004**)

www.pthorticulture.com



Net weight	Volume
25 lb (11.3 kg)	2.8 cu ft loose (79 L)
60 lb (27.2 kg)	3.8 cu ft compressed (107 L)
870 lb (395 kg)	55 cu ft compressed (1,557 L)
535 lb (243 kg)	60 cu ft loose (1,700 L)
625 lb (283 kg)	70 cu ft loose (1,982 L)
710 lb (322 kg)	80 cu ft loose (2,265 L)
2,200 lb (998 kg)	135 cu ft compressed (3,825 L)

PRODUCT OF CANADA

Manufactured For and Guaranteed By:
PREMIER HORTICULTURE INC.
200 Kelly Road, Unit E-1
Quakertown, PA 18951
USA

PRODUIT DU CANADA

Manufactured By:
PREMIER HORTICULTURE LTD.
1, avenue Premier
Rivière-du-Loup, Québec
Canada G5R 6C1

Batch Code:

PRO-MIX® TANDEM; EPA Reg. No. 74267-4
LABEL AMENDMENT to make minor text changes
CLEANVERSION - Label version (6) dated May 17, 2019
Page 1 of 7

(Back Panel)

FIRST AID

If in Eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Contact a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

For non-emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1-800-858-7378 (NPIC Web site: www.npic.orst.edu). For emergencies, call your local poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals. CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Applicators (e.g., persons opening bags and/or filling potting machines) and other handlers must wear protective eyewear, a long-sleeved shirt, long pants, shoes, socks, and a NIOSH-approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are available for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards: For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Given the pesticide active ingredient is already incorporated into a sphagnum peat-based growing medium, no restricted-entry interval (0 hours) is needed for this product.

PRODUCT INFORMATION

PRO-MIX® TANDEM has been enriched with *Bacillus pumilus* bacteria that colonize developing root systems and suppress disease-causing organisms, such as *Pythium*, *Fusarium* and *Rhizoctonia*, and certain labeled insect pests, such as fungus gnats that attack root systems and thrips that pupate into the growing medium. As the root system develops, the bacteria grow within the rhizosphere and extend the protection throughout the growing season. The bacteria also act as a biostimulant and develop with the plant root system as it grows. As a result, a vigorous root system is established, which results in more uniform plant stands after transplanting. In addition, the *Glomus intraradices* fungi contained in **PRO-MIX® TANDEM** attach to and colonize root systems, working in symbiosis with plants. Endomycorrhizal fungi benefit the host plant by increasing acquisition of water and nutrients (especially phosphorus, copper and zinc) by forming an extensive mycorrhizal hyphal network that attaches to the plant root system. In exchange, the plant provides soluble sugars to the fungus. This symbiotic relationship between fungi and plant results in overall improved plant growth.

PRO-MIX® TANDEM CUSTOM BLENDS

PRO-MIX® TANDEM is a custom-blended growing medium designed to meet your growing needs.

• **BX Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® BX BIOFUNGICIDE™ + MYCORRHIZAE™)** is a general purpose, peat-based growing medium formulated for the cultivation of horticultural plants. This growing medium contains a blend of select Canadian sphagnum peat moss, perlite, vermiculite, dolomitic limestone and calcitic limestone. This formulation is lightweight, is uniform and provides conditions necessary to establish plant growth.

• **HP Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® HP BIOFUNGICIDE™ + MYCORRHIZAE™)** is a high porosity, peat-based growing medium formulated for the cultivation of horticultural plants. This lightweight and porous growing medium provides conditions necessary to establish plant growth, especially when growing

situations require a medium with high air capacity and low water retention. This formulation is excellent for use with water-sensitive crops, for propagation of plant cuttings and/or for low-light growing conditions.

- **HPCC Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® HPCC BIOFUNGICIDE™ + MYCORRHIZAE™)** is a coarse-textured, high porosity, peat-based growing medium that is blended with chunk coir. This combination of ingredients is ideal for potted crops and large containers when coarse texture and high drainage are required. This formulation is lightweight, uniform and suitable for a wide variety of horticultural plants.

- **LP15 Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® LP15 BIOFUNGICIDE™ + MYCORRHIZAE™)** is a multipurpose, peat-based, perlite growing medium formulated for growers that prefer a low amount of aggregate and no vermiculite. **PRO-MIX® TANDEM (ABN: PRO-MIX® LP15 BIOFUNGICIDE™ + MYCORRHIZAE™)** is suitable for a wide range of greenhouse and transplanting applications.

- **MPX Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® MPX BIOFUNGICIDE™ + MYCORRHIZAE™)** is a peat-based growing medium formulated for the cultivation of horticultural greenhouse plants. It is uniform and blended to the highest degree of consistency to provide conditions necessary to establish plant growth. **PRO-MIX® TANDEM (ABN: PRO-MIX® MPX BIOFUNGICIDE™ + MYCORRHIZAE™)** is suitable for a wide variety of plant species.

- **BRK Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® BRK BIOFUNGICIDE™ + MYCORRHIZAE™)** is a mediumweight, peat/bark-based growing medium formulated for the cultivation of horticultural plants. Processed pine bark adds weight and reduces water retention of the medium, while sphagnum peat moss is lightweight and possesses high water-holding ability. This combination forms a base for a “general use” growing medium that provides the conditions necessary to establish plant growth, particularly when container stability and low water retention are required.

- **BRK20 Blend. Similar to the BRK Blend, PRO-MIX® TANDEM (ABN: PRO-MIX® BRK20 BIOFUNGICIDE™ + MYCORRHIZAE™)** is a peat/bark-based growing medium with 20% processed pine bark to add weight and reduce water retention of the medium. This combination forms a base for a “general use” growing medium that provides the conditions necessary to establish plant growth when less bark is required.

- **FPX Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® FPX BIOFUNGICIDE™ + MYCORRHIZAE™)** is a fine peat, perlite-based growing medium formulated for germinating ornamental and vegetable seeds in small cell plug trays. It contains a base blend of short-fibered sphagnum peat moss and fine perlite for easy filling of trays with minimal bridging. When in use, this blend retains less water than peat/vermiculite blends.

- **PGX Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® PGX BIOFUNGICIDE™ + MYCORRHIZAE™)** is a peat-based growing medium formulated for germinating ornamental and vegetable seeds. This fine-textured blend contains a base of short-fibered sphagnum peat moss and fine grade vermiculite and is well suited for traditional seeding and plug-system applications.

- **TA Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® TA BIOFUNGICIDE™ + MYCORRHIZAE™)** is a peat-based growing medium formulated for germinating and growing-on of tobacco and agriculture transplants. This blend is ideal for use with trays/flats cultivated in sub-irrigated float systems and irrigation methods. This fine-textured blend is user-friendly for filling small cell trays and flats with automated equipment or by hand.

• **VFT Blend. PRO-MIX® TANDEM (ABN: PRO-MIX® VFT BIOFUNGICIDE™ + MYCORRHIZAE™)** is a peat-based growing medium formulated for germinating and growing-on of vegetable, fruit and tobacco transplants. This blend is ideal for use with trays/flats cultivated in sub-irrigated float systems and irrigation methods. *(Optional Text: This formulation contains a blend of ingredients that allows oxygen and water to move freely for uniform seed germination and plant growth. This fine-textured blend is user-friendly for filling small cell trays and flats with automated equipment or by hand. USES: Vegetable Transplants, Fruit Transplants, Tobacco Transplants, Germination of Tobacco and Vegetable Seeds, Float Trays, Sub-Irrigation Systems).*

To determine the best **PRO-MIX® TANDEM** blend for your growing needs, consult the following base-formula table. For technical assistance, plant compatibility information and crop culture guidelines, **contact PREMIER GROWER SERVICES – USA: 1-800-424-2554 – Canada: 1-800-667-5366.**

PRO-MIX® TANDEM Base Formula	Sphagnum Peat Moss	Perlite	Vermiculite	Bark	Coir	Starter Nutrients	Limestone	Wetting Agent	BIOFUNGICIDE <i>Bacillus pumilus</i> strain GH180
BX Blend	---- 75-85%/vol.	----	----			----	----	----	----
HP Blend	---- 65-75%/vol.	----				----	----	----	----
HPCC Blend	---- 65-75%/vol.	----			---- Chunk	----	----	----	----
LP15 Blend	---- 80-90%/vol.	----				----	----	----	----
MPX Blend	---- 85-95%/vol.	----				----	----	----	----
BRK Blend	---- 40-50%/vol.	----		---- *1		----	----	----	----
BRK20 Blend	---- 60-70%/vol.	----		---- *1		----	----	----	----
FPX Blend	---- 80-90%/vol.	---- plug-grade				----	----	----	----
PGX Blend	---- 75-85%/vol.		---- plug-grade			----	----	----	----
TA Blend	---- 80-90%/vol.		---- plug-grade			----	----	----	----
VFT Blend	---- 75-85%/vol.		---- plug-grade			----	----	----	----

*1 – Processed pine
---- Component present in blend

PREPARATION

Open package at the time of seeding, potting or transplanting. Pre-moisten medium with water until slightly moist to the touch after emptying package. Transplant cuttings, plugs, seedlings, etc. in moistened medium taking care to avoid compaction (do not press down around seed or root systems). After transplanting, add water to settle medium. Place newly transplanted trays and pots in a suitable growing area within the protected growing environment. Potting benches and equipment should be located in a clean, weed-free area.

IMPORTANT: PRO-MIX® TANDEM is suitable for ornamentals, vegetables, fruits, and tobacco. PRO-MIX® TANDEM is for use in protected growing environments only (e.g. glasshouses or greenhouses) and not for use in non-protected environments (e.g. non-contained nurseries or slat houses).

FERTILIZATION

Initial plant development will occur without immediate fertilization. It is essential to initiate a fertilization program at the emergence of the first set of true leaves; this will ensure plants receive adequate nutrients. Select a fertilization program that is appropriate for the plant species grown, stage of development and water nutrient content. If you frequently analyze media nutrient levels and plant tissue throughout the production cycle, you can ensure plants receive proper nutritional requirements.

WATER MANAGEMENT

An essential part of crop culture is water management. When plants require water, irrigate the crop early in the day. This will allow plant foliage and medium surface to dry. Also, medium temperature can warm to normal level by evening. Irrigate thoroughly so water ‘runs through’ to prevent salt accumulation and to ensure uniform wetting and drying of containers throughout the crop. If preferred, additional wetting agent can be applied during the crop cycle at irrigation to reduce surface tension of water for more thorough water penetration and movement throughout the root zone.

APPLICATION INFORMATION

- Use **PRO-MIX® TANDEM** “as is” from package. Pre-moisten medium with water until slightly moist to the touch after emptying package.
- Thoroughly moisten medium to “water-in” plants after transplanting and placing in the protected growing environment.
- Do not add fertilizers when sowing seeds.
- Use for plants requiring a growing pH between 5.0 and 7.0.
- Do not sterilize or pasteurize **PRO-MIX® TANDEM**.
- Do not store wet growing media, as pH will tend to climb from activation of limestone.
- Store products in sealed bags to avoid intrusion from water, pathogens, pesticides and weeds.
- Pesticides and chemical plant regulator treatments can be used in combination with **PRO-MIX® TANDEM** and will provide extended protection throughout the growing season.
- Rotate product inventory to practice ‘First In – First Out’. Product performance is best when used within 12 months of manufacturing date (see manufacturing date on package: yyyy.mm.dd.).

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a dry place at ambient temperature: -22 to 86°F (-30 to 30°C).

PESTICIDE DISPOSAL: To avoid waste, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty medium from the bag. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration.

QUALITY GUARANTEE

PREMIER HORTICULTURE INC. is **committed to quality**. If you are not satisfied with the quality of this product, PREMIER HORTICULTURE INC. guarantees to replace it or refund its purchase price. To the extent consistent with applicable law, all other remedies, liabilities, including liability for direct or consequential damages and warranties of merchantability and fitness for a particular purpose are excluded.

PLEASE RECYCLE

THIS PRODUCT RESPECTS ALL LEGISLATION ON HEAVY METALS

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.html> (for USA only).



Manufactured For and Guaranteed By:

PREMIER HORTICULTURE INC.

200 Kelly Road, Unit E-1

Quakertown, PA USA 18951

For additional information, call:

1-800-525-2553

www.pthorticulture.com

Manufactured By:

PREMIER HORTICULTURE LTD.

1, avenue Premier

Rivière-du-Loup, Québec

Canada G5R 6C1

For additional information, call:

1-800-667-5366

www.pthorticulture.com

PRODUCT OF CANADA